

I CLAIM:

1. A computer-based communication network comprising  
a communication medium, and  
5 plural communication nodes operatively connected to said medium, and having  
transmission access thereto solely on the basis of time-slot transmission scheduling which  
is self-performed substantially autonomously by said nodes.

2. A computer-based communication network comprising  
10 a communication medium, and  
plural communication nodes operatively connected to said medium, operable to  
transmit information over the medium in a collision-avoidance manner based upon a per-  
node, time-slot scheduling, access-control protocol which effectively operates continually  
in relation to a span of time that brackets the current moment, with that span  
15 encompassing an extent which includes currently knowable, prior, time-slot-scheduling  
history, along with future time-slot-scheduling intension.

3. The network of claim 2 which is structured whereby nodal transmission of  
information is accompanied by nodal transmission of all then-current, future time-slot-  
20 scheduled nodal transmission intentions.

4. A computer-based communication network comprising  
a communication medium, and  
plural, self-timing-controlled, participating communication nodes operatively  
5 connected to said medium and operable to gain transmission access to the medium based  
upon prior transmission-scheduling knowledge, along with future transmission  
deferential scheduling.

5. The network of claim 4 which is structured whereby nodal transmission  
10 includes transmission of all then-current future transmission deferential scheduling.

6. A computer-based communication network comprising  
a communication medium, and  
plural, self-timing-controlled, participating communication nodes operatively  
15 connected to said medium, each of said nodes being operable to gain collision-avoidance,  
transmission-communication access to said medium only on the basis of a precursor, self-  
established and designated, time-slot schedule for such transmission which is prepared  
deferentially with controlling reference to any then currently existing and previously  
established time-slot schedule that has been created by prior-transmitting, participating  
20 nodes.

7. A transmission-medium access-control method practiceable by participating communication nodes that are network connected to such a medium, said method, from the point of view of each such node which anticipates the need to connect  
5 to the medium and to transmit data, comprising

listening to network communication traffic which contains node-transmitted data packets, each having a time origin of transmission and being associated, in the overall, current network traffic, with a then-contemporaneous report of future-scheduled, time-slot differentiated and time-dimensioned, specific nodal intensions for transmission  
10 access to the medium,

in view of that report, differentially self-scheduling, in a collision-avoidance manner, at least one self-interest time-slot for its own next transmission,

abiding by that self-interest schedule in terms of next seeking transmission communication access to the medium, and

15 on engaging in transmission in accordance with said schedule-abiding, associating that transmission with a new, then-contemporaneous schedule of all known, future-scheduled, transmission time-slot intentions.

8. The method of claim 7, wherein said listening by a participating node is  
20 performed during a listening state which is defined for the node, said engaging in transmission is performed during a transmission state which is defined for the node, and said two states exist in mutually exclusive periods of time.

9. The method of claim 7, wherein each nodal transmission includes an element of content data, and another element which contains the mentioned then-contemporaneous schedule of future time-slot nodal transmission intentions.